

REMARKS

Claim 1 has been amended to include the limitations of claim 3 and claim 3 has been canceled. Upon entry of this amendment, claims 1, 2, and 4 will be in the application.

In the Official Action, claims 1-2 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Manlove et al. (US 4,959,859). Also, claim 3 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Manlove et al. in view of Ohsawa (US 4,049,918). In addition, claim 4 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Manlove et al. in view of Ishiguro et al. (US 4,972,482). As noted above, claim 1 has been amended to include the limitations of claim 3. Accordingly, the rejection of claim 3 over Manlove et al. and Ohsawa will be addressed in connection with amended claim 1. It is submitted that the rejection of claims 1-2 over Manlove et al. is now moot and that dependent claims 2 and 4 are allowable for the same reasons as amended claim 1.

Amended claim 1 relates to a separation adjustment circuit including a first adjustment unit that adjusts the current amount of an input signal (=difference signal or sum signal) of a mixing unit (mixer) and a second adjustment unit that adjusts the current amount of an output signal of the mixing unit, to control DC offset. That is, in the circuit of amended claim 1, the adjustment of the output signal by the second adjustment unit is linked with the adjustment of the input signal by the first adjustment unit.

The Examiner states in the Official Action with respect to claim 3 that it would have been obvious to one skilled in the art to combine the teachings of Manlove et al. with the teachings of Ohsawa, further alleging that "a resistance (fig. 3 "resistance connecting nodes P1 and P2") is connected to an output stage of the circuit; and an adjustment unit (fig. 3 #5) being connected to the resistance in parallel and adjusting a current amount flowing in the resistance (col. 4 ln. 60-68)." However, the Examiner is asked to note that the variable resistor 5 in Ohsawa is a variable resistor for separation adjustment (Ohsawa, col. 4, line 68 to col. 5, line 4). That is, the variable resistor 5 in Ohsawa is the same item as the first adjustment unit in amended claim 1 of the present invention and is different from the claimed second adjustment unit. Therefore, the configuration of new claim 1 comprising a resistor in the output stage separately from a variable resistor for separation adjustment cannot be achieved by combining the teachings of Manlove et al. and Ohsawa as the Examiner alleges.

In addition, the configuration of amended claim 1 whereby the adjustment by the second adjustment unit is based on of the current amount adjusted by the first adjustment unit (linked with the adjustment of the current amount by the first adjustment unit) is not taught by Manlove et al. and/or Ohsawa separately or in any proposed combination of teachings. The circuit of amended claim 1 is thus believed to clearly distinguish from the teachings of Manlove et al. and Ohsawa.

Moreover, with respect to claim 2, the Examiner is asked to note that transistors 44, 46, 48, 50 in Manlove et al. do not correspond to the first adjustment unit, and transistor 38 does not select the transistors 44, 46, 48, 50 either. Rather, the transistors 44, 46, 48, 50 constitute matrix 16 and correspond to a mixer circuit in the context of the circuit of claim 2 of the present application.

The closest thing to the claimed "first adjustment unit" of amended claim 1 appears to be the variable attenuator 18 in Manlove et al.; however, variable attenuator 18 is not configured to adjust a current amount that flows in the resistance based on a current amount adjusted by the first adjustment unit as claimed.

For these reasons, the circuit of claim 1 and dependent claims 2 and 4 is not believed to be shown or suggested by the cited prior art. Withdrawal of all rejections is respectfully requested.

Conclusion

For the foregoing reasons, the present application is believed to be in condition for allowance. A Notice of Allowability is respectfully requested.

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